

PIEZOELECTRIC GENERATOR

ABSTRACT

A method of extracting electrical energy from mechanical motion includes
5 reusing an elastic portion of energy in a transducer by transferring the elastic portion of
energy to another transducer. An apparatus for extracting electrical energy from
mechanical motion includes at least two transducers coupled such that an elastic portion
of energy in one transducer is transferable to the other transducer. The transducers are
coupled by a member defining a waved surface, and each transducer defines a coupler in
10 contact with the waved surface for movement following the waved surface. Couplers of
two transducers are positioned such that they move out-of-phase relative to each other.
The transducers are bound to a plate positioned between members such that the plate is
deformed. The plate and members are configured such that relative rotation
therebetween produces a wave that travels along the plate.

15